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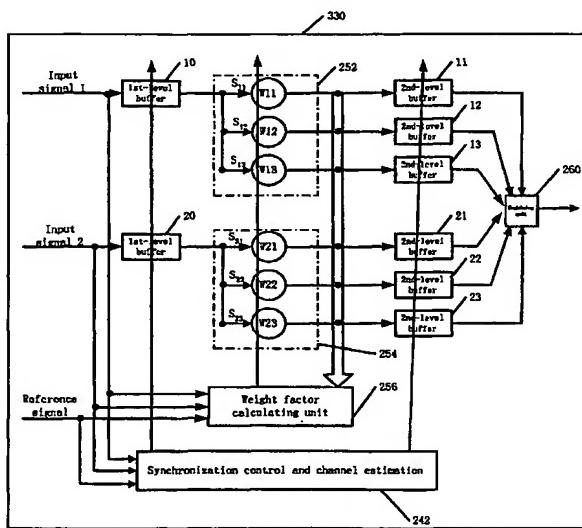
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(54) Title: A 2D RAKE RECEIVER FOR USE IN WIRELESS COMMUNICATION SYSTEMS



(57) Abstract: A 2D Rake receiver is proposed, comprising: a control module, for generating, according to a reference signal and the radio signals received by a plurality of antenna elements, the multipath information about the radio signals; a weight factor calculating unit, for calculating the corresponding weight factors of the received radio signals corresponding to different antenna elements according to the multipath information; a plurality of 1 D Rake receivers, each of which is for receiving radio signals from the corresponding antenna element and weighting the radio signals received by the Rake receiver with the corresponding weight factor; a combining unit, for combining the weighted radio signals outputted from the plurality of 1 D Rake receivers, to output a combined signal.



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